

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown on the Claims Listing dated 3/31/05 appended hereto.

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What is claimed is:

1-41 (cancelled)

42. (currently amended) ~~A Reflection photometric~~ An analytical system for reflectometric examination analysis of an analyte in a sample liquid ~~a target surface of a test strip for body fluids, the analytical system~~ comprising:

a test strip with a target surface for application of the sample liquid;

a measuring head arranged at a distance from the target surface, wherein the measuring head consists of comprises a radiation source for radiating the sample and a radiation detector for measuring radiation reflected by the sample;

a an optical triangulation unit operating on the basis of optical triangulation for detecting the distance of between the measuring head from and the target surface without contact with the target surface, wherein the triangulation unit has comprises a light emitter directed towards the target surface in an incidence axis and a light receiver pointing towards the target surface in the direction of a receiving axis; and

a control device to set a constant measuring for adjusting the distance between the measuring head and the target surface to a predetermined value, thereby permitting accurate analysis of the analyte by the measuring head.

43. (previously presented) The analytical system as claimed in claim 42, wherein the incidence and receiving axis intercept at a reference point at a specified angle and the reference point defines a reference position of the target surface.

44. (previously presented) The analytical system as claimed in claim 42, wherein the incidence and receiving axis enclose different angles relative to a perpendicular on the target surface.

45. (currently amended) The analytical system as claimed in ~~claims~~ claim 42, wherein the light receiver has a sensor, which is ~~position-resolving~~ position-resolving at right angles to the receiving axis.

46. (currently amended) The analytical system as claimed in ~~claims~~ claim 45, wherein the sensor is a PSD sensor, CCD sensor or multi-element diode sensor.

47. (previously presented) The analytical system as claimed in claim 42, wherein the light receiver is a double sensor with two single sensors preferably arranged next to one another and symmetrically to the receiving axis.

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48. (previously presented) The analytical system as claimed in claim 42, wherein the light receiver has a collecting optical system whose optical axis defines the receiving axis for focussing the light reflected from the target surface.
49. (previously presented) The analytical system as claimed in claim 42, wherein the light emitter has a light source in particular a point light source and a collimating optical system whose optical axis defines the incidence axis for generating a light beam which is incident on the target surface.
50. (previously presented) The analytical system as claimed in claim 42, wherein the light emitter has a modulation stage for the time-varying and preferably pulsed-shaped actuation of a light source.
51. (previously presented) The analytical system as claimed in claim 42, wherein the light emitter has an edge generator to produce non-linear and preferably exponentially increasing or decreasing light pulses.
52. (previously presented) The analytical system as claimed in claim 42, wherein the triangulation unit has a signal processing circuit for determining changes in the distance relative to a reference position on the target surface.
53. (previously presented) The analytical system as claimed in claim 52, wherein the signal processing circuit has a comparator and a timer to determine the time interval between specified signal amplitudes of output signals of the triangulation unit.
54. (previously presented) The analytical system as claimed in claim 42, wherein the control device sets the constant distance between the target surface and measuring head by means of a servodrive.
55. (previously presented) The analytical system as claimed in claim 42, further comprising a path measuring device to record the path of the measuring head for determining a height profile of the test object.
56. (previously presented) The analytical system as claimed in claim 55, wherein the path measuring device has a height profile store to identify the test object.
57. (previously presented) The analytical system as claimed in claim 42, further comprising an evaluation unit to standardize the results of the photometric analysis of the triangulation unit on the basis of the distance between the target surface and the measuring head.
58. (previously presented) The analytical system as claimed in claim 42, wherein the light source is at the same time the light emitter and/or the radiation detector is at the same time the light receiver of the triangulation unit.

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59. (currently amended) A method for reflectometric analysis of an analyte in a sample liquid ~~a target surface of a test strip for body fluids, the method~~ comprising:
- applying the sample liquid to a target surface of a test strip;
- arranging the target surface at a distance from a measuring head, wherein the measuring head comprises a source for radiating the sample and a detector for measuring radiation reflected by the sample;
- detecting a the distance between the measuring head and target surface by means of a an optical triangulation unit, operating on the basis of optical triangulation, comprising a light emitter directed towards the target surface in an incidence axis and a light receiver pointing towards the target surface in the direction of a receiving axis; and
- adjusting, by means of a control device, the distance between the measuring head and the target surface to a predetermined value, thereby permitting accurate analysis of the analyte by the measuring head.
60. (previously presented) The method as claimed in claim 39, wherein the changes in the distance relative to a reference distance of the target surface are detected by means of a corresponding light deflection onto a light receiver of the triangulation unit.
61. (previously presented) The method as claimed in claim 39, wherein the distance is kept constant by means of a control device.